

terminée par une dent, puis elles sont cylindriques, avec deux dents microscopiques à l'arête interne, jusqu'aux pointes contigues.

Nouvelle Calédonie.

Voisin de *L. dolicha* et *L. mexicana*, etc.; en diffère par la coloration de la forme de la pince.

[To be continued.]

BIBLIOGRAPHICAL NOTICES.

Palæontologia Indica. Series XV. *Himalayan Fossils*. Vol. II. Part 1. *The Cephalopoda of the Lower Trias*. By CARL DIENER, Ph.D., University of Vienna. Pages 181; plates i.-xxiii. Folio. Calcutta: Geol. Survey Office. London: Kegan Paul & Co.

IN 1879 C. L. Griesbach (now Director of the Geological Survey of India) discovered, near the Niti Pass, the *Otoceras* beds, which contain the oldest Cephalopod-fauna of the Buntsandstein. They lie just above the Permian *Productus* shales, and below shales and limestones, which are overlain by true Muschelkalk. The same observer discovered another Cephalopod-horizon higher up in the series, and identical with Diener's "*subrobustus* beds" in the upper part of the Lower Triassic series. In 1892 the surveyors discovered some very characteristic Ammonites in a bed of the same age as the last-mentioned in the Shalshal river-cliff opposite the Rimkin Palar camping-ground, a little below the confluence of the Barahoti and Chorhoti Rivers. Of this section a woodcut-figure is given at page 3, showing:—

8. *Dacnella* beds.
- { 7. Crinoidal limestones with fossils of the *Æonoides* horizon
(*Johannites* cf. *cymbiformis*).
- h. *Halobia* bed of the *Æonoides* horizon.
- { 6. } Muschelkalk { Upper division.
- { 5. } { Lower division.
- g. Main layer of *Ptychites rugifer*.
- f. Main layer of *Ceratites Thuillieri*.
4. Horizon of *Sibirites Prahlada*.
3. *Subrobustus* beds.
- { e. Shales alternating with limestones.
- { d. Shales.
2. *Otoceras* beds { c. Limestones with *Ophiceras*, sp.
- { b. Shales with *Medlicottia Dalailamæ*.
- { a. Main layer of *Otoceras Woodwardi*.
1. *Productus* shales (Permian).

The characteristic Cephalopods of the several strata of the series under notice in this and other sections are carefully compared,

		HIMALAYAS.		
Eastern Alps.		Main region.	Hallstatt development of Chitichun.	Salt-Range.
Upper Muschelkalk.	Upper Muschelkalk. Horizon of <i>Ceratites trinodosus</i> .	Muschelkalk with <i>Ptychites rugifer</i> , <i>Ceratites Thuilleri</i> , <i>Beyrichites Khanikofi</i> , <i>Buddhaites rama</i> , etc.		Dolomite Group (?) (<i>pro parte</i>). Bivalve beds.
Lower Muschelkalk.	Lower Muschelkalk. Horizon of <i>Ceratites binodosus</i> .	Brachiopod beds with <i>Sibirites Prahlada</i> , <i>Rhynchonella Griesbachi</i> , etc.	Red limestones of Chitichun (Lochanbelkichak) with <i>Procladiscites yasoda</i> , <i>Monophyllites Confucii</i> , <i>Sturia mongolica</i> , etc.	Upper Ceratite Limestone (?).
Buntsandstein.	Werfen beds.	Campil beds. Cephalopod-bearing horizon with <i>Meekeceras caprilente</i> , <i>Tirolites Cassianus</i> , <i>Dinarites dalmatinus</i> , etc.	(?)	Ceratite Sandstone.
	Seiss beds.	<i>Otoceras</i> beds. Unfossiliferous shales and limestones. Main layer of <i>Otoceras Woodwardi</i> .		Ceratite Marls. Lower Ceratite Limestone. Unfossiliferous shale and sandstones.
Permian.	<i>Bellerophon</i> beds of Southern Tirol and Venetia.	<i>Productus</i> shales with <i>Productus cancriniformis</i> , <i>P. Abichi</i> , <i>Spirifer musakhelensis</i> , etc.	Limestone-erag of Chitichun No. 1 with <i>Popanoceras trimurti</i> , etc.	Upper <i>Productus</i> Limestone. Chidru beds. Jabi beds.

Julfa, Armenia.	North-eastern Siberia (Olenek River).	Eastern Siberia (Ussuri district).	Spitzbergen.	Idaho (U. S., America).
			<p><i>Daonella</i> limestones.</p>	
<p>Beds with <i>Trizocorallium</i> (?).</p>	<p>Fauna of Mengilach with <i>Beyrichites</i> <i>affinis</i>, <i>Hungarites</i> <i>triformis</i>, etc.</p>	<p>Sandstones with <i>Monophyllites sich-</i> <i>oticus</i>, etc. (Russkij Island).</p>	<p><i>Posidonomya</i> limestones.</p>	
<p>Shaly limestone beds with <i>Pseudomonotis</i> cf. <i>Clarai</i> and (?) <i>Tirollites</i>.</p>	<p>Olenek beds with <i>Ceratites subrobustus</i>, <i>Dinarites</i> <i>glacialis</i>, etc.</p>	<p><i>Proptychites</i> beds with <i>Proptychites</i> <i>hiemalis</i>, <i>Kingites</i> <i>varaha</i>, etc.</p>		<p><i>Meekoceras</i> beds of Idaho with <i>Meekoceras</i> <i>gracilitatis</i>, <i>M. aplanatum</i>, etc.</p>
<p><i>Meekoceras</i> beds of Idaho with <i>Gastri-</i> <i>oceras Abichianum</i>, <i>Meekoceras tropitum</i>, etc.</p>				

pages 3-10; and then the main object of this memoir, namely the detailed description of the Lower Triassic Cephalopoda of the Himalayas, is carried out at pages 11-164, with good illustrations on plates i. to xxiii.

The following are the genera of Cephalopoda here figured and described:—

<i>Ammonea trachyostraca.</i>	Species.		Species.
Ceratites	2	Ophiceras	10
Danubites	13	Sub- { Meekoceras	5
<i>Ammonea leiostraca.</i>		genera { Koninckites	2
Prospingtes	2	{ Kingites	1
Medlicottia	1	{ Aspidites	1
Hedenstrœmia	2	Lecanites	2
Nannites	2	Prionolobus	1
Propychnites	4	Hugurites	1
Vishnuites	1	Otoceras	6
Flemingites	4		

The faunistic and geological results are worked out at pages 165-179; and the accompanying tabular statement (pp. 242-243) shows the correlation of the Upper Permian and Lower Trias formations of the Himalayas with those of other countries.

The Palæontology of the Niagaran Limestone in the Chicago Area.

The Crinoidea. By STUART WELLER. *Bull. Nat. Hist. Survey Chicago*, iv. part 1, 153 pp., xv. pls., and text-figures. 27th June, 1900.

THIS is the first contribution to the palæontology of the area covered by the Natural History Survey of Chicago, and including nearly 1800 square miles. It should be particularly useful to the students of the Chicago University in its general account of the Crinoidea, as illustrated by specimens which, though not particularly well-preserved, are the nearest to their hands. To students of this group of animals the work is of interest as recording the occurrence of *Crotalocrinus*, *Pycnosaccus*, and *Corymbocrinus*—genera previously unknown within the limits of the present United States of America. To those whose outlook on palæontology is wider the memoir should appeal as presenting Dr. Weller's views on the distribution of the sea-basins of the Niagara-Wenlock Age. He believes that the Scandinavian and English fauna was connected with that of the Mississippi Valley, by the intervention of a North Polar Sea, more closely than it was with the nearer sea-basin of New York, the latter forming a separate bay, in which the development pursued a somewhat independent course. Among highly specialized forms common to the Mississippian and Scandinavian regions are: the well-known *Crotalocrinus*, so far represented in America only by a meagre fragment; the strange *Petalocrinus*, first made known by Dr. Weller himself, and afterwards elaborately described by Bather; the curious operculate coral *Goniophyllum*; and the little twisted Brachiopod *Streptis*.

A work of this size and importance should certainly have been provided with an index.